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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,499	04/19/2004	Heinrich Friederich	00635.0371-US-01	3463
22865	7590	11/01/2005		
ALTERA LAW GROUP, LLC 6500 CITY WEST PARKWAY SUITE 100 MINNEAPOLIS, MN 55344-7704			EXAMINER REESE, DAVID C	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/827,499

Applicant(s)

FRIEDERICH ET AL.

Examiner

David C. Reese

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-10, 12 and 13 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 6-10, 12 and 13 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____.

DETAILED ACTION

The following is in response to applicant's RCE filed 9/1/2005

Status of Claims

- [1] Claims 6-10, 12-13 are pending.

Claim Rejections - 35 USC § 103

- [2] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- [3] Claims 6-7, 9-10, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0989311 in view of Wagner, US-4,193,434.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claim 12, EP 0989311 teaches of a screw element having a screw axis, comprising:

a tool engagement element (page 5 on the applicant's instant amendment); and
a spring element having a free edge (7');

wherein the spring element is formed on the screw element in one piece (page 6 on the applicant's instant amendment);

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wherein the spring element is coaxial with the screw axis (page 6 on the applicant's instant amendment);

wherein the free edge defines a workpiece contact plane which is perpendicular to the screw axis and is spaced axially from the screw element;

wherein the spring element is mounted at the periphery of the screw element;

wherein the spring element projects radially beyond the periphery;

wherein the spring element forms a workpiece contact, which is disposed outside the periphery of the screw element and is concentric with the screw axis;

wherein the spring element is a ring which is concentric around the screw axis;

wherein the spring element has a workpiece contact which is annular throughout; and

wherein the spring element is [adapted to prevent the pre-stressing effect for the screw connection being lost by virtue of changes in length thus ensuring sufficient frictional force to prevent the screw connection becoming unscrewed].

Note that it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation, but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

The difference between the claim and EP 0989311 is the claim recites: wherein the ring has a plurality of opening distributed uniformly over its periphery. Wanger discloses a fastener similar to that of EP 0989311, including that of a spring element 28 (Fig. 2 of Wagner). In addition to teaching of a similar spring element to EP 0989311, Wagner further teaches of additional embodiments that the structure of the spring element 28 can take, specifically including a modification of Fig. 5; showing a spring element with a plurality of openings distributed uniformly over its periphery. As stated profoundly in columns 3 and 4, beginning

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with line 50 in col. 3, it is stated that, "The spring constant of the flange 28 may be varied to suit the particular application...various modifications may be made to the spring-like flange 28 in order to reduce the spring constant for any given application...it should be noted that a plurality of closed apertures 48 are created in the flange at circumferentially spaced locations radially outwardly of inner peripheral surface 52, thus effectively forming a plurality of interconnected spring arm regions 50 and outer peripheral load bearing regions 54". It would have been obvious to one of ordinary skill in the art, having the disclosures of EP 0989311 and Wagner before him at the time the invention was made, to modify the spring element of EP 0989311 to incorporate various modifications to said spring element, as in Wagner. One would have been motivated to make such a combination to help effectively eliminate the compressive load on a plastic workpiece, helping to reduce the spring load on the plastic while maximizing the total clamping load capacity of the column or load, as taught by Wagner.

Re: Claim 6, EP 0989311 shows wherein the spring element has a relatively flat spring characteristic.

Re: Claim 7, EP 0989311 shows wherein the spring element is of lower hardness than the screw element.

Re: Claim 9, Wagner shows wherein the screw is of a thread-forming nature (20).

Re: Claim 10, EP 0989311 shows wherein only the spring element and it bears with a predetermined prestressing force against the adjoining workpiece.

Re: Claim 13, Wagner shows wherein the screw is of a self-boring nature.

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[4] Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0989311 in view of Wagner, US-4,193,434 and in further view of Hsiao, US 6,302,629.

Although the invention is not identically disclosed or described as set forth 35 U.S.C. 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a designer having ordinary skill in the art to which said subject matter pertains, the invention is not patentable.

As for Claim 8, EP 0989311 in view of Wagner teach of the above claims.

The difference between the claim and EP 0989311 in view of Wagner is the claim recites: projections in the region of the workpiece contact. Hsiao discloses a fastener similar to that of EP 0989311 in view of Wagner. In addition, Hsiao further teaches of projections in the region of the workpiece contact. It would have been obvious to one of ordinary skill in the art, having the disclosures of EP 0989311 in view of Wagner and Hsiao before him at the time the invention was made, to modify the spring element of EP 0989311 in view of Wagner to include projections, as in Hsiao. One would have been motivated to make such a combination because the projections can generate counter stresses which can absorb any ways of torque and won't loose (abstract), as taught by Hsiao.

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Conclusion

[5] The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following additional patents are cited further to show the state of the art with respect to this particular type of fastener; as well as their extreme relevance to the current application as many read extensively onto the claimed invention: please see submitted notice of reference cited.


[6] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached at (571) 272-7075. **Please also note the change in the fax phone number to (571) 273-8300 for the organization where this application or proceeding is assigned.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DCR

Sincerely,
David Reese
Assistant Examiner
Art Unit 3677


ROBERT J. SANDY
PRIMARY EXAMINER